CASE REPORT

# Iatrogenic swollen penis

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We report what we think is the first case of localised angioedema of the glans penis as a result of contact allergy to prilocaine in EMLAP cream. We also propose a new term, contact angioedema for this condition.

A eutectic mixture of lidocaine and prilocaine (EMLAP) is widely used in Europe and the United States and has recently been introduced in India. It has good percutaneous absorption and its topical anaesthetic and analgesic properties have led to many therapeutic uses. These include single application before procedures such as venepuncture, vascular cannulation, lumbar puncture, and minor dermatologic procedures.[1] There are reports of hypersensitivity reactions to prilocaine,[2 3] but despite widespread and frequent use, there are no reports of localised angioedema developing secondary to EMLAP cream. Contact urticaria is a weal and flare reaction that appears when certain agents contact the skin. Contact urticaria can be either allergic (immunological) or non-allergic (non-immunological).[4 5] We report a case of EMLAP cream induced localised angioedema affecting the penis which has not been described till now.

## CASE REPORT

The patient was a married 46 year old man who presented with complaints of a severe, persistent burning sensation over the glans penis of 3 weeks' duration. The complaints started following a protected oral insertive sex with a woman friend. He had no other associated diseases and was in good health. He denied the occurrence of any previous genital ulcerations or urethritis. Examination revealed normal genitalia. He was diagnosed as having idiopathic genital pain syndrome (penodynia[4]) and was started on paroxetine 10 mg once daily. Since he complained of a severe burning sensation localised to the glans, he was also given EMLAP cream (lidocaine 25 mg and prilocaine 25 mg in water miscible base) for topical application, to be used whenever he felt intense pain. Two weeks after using the cream, he reported with the complaints of swelling of the glans associated with mild itching of 5 days' duration. There was no history of any oozing, redness, or dermatitic lesions. The patient had noticed that when he stopped the application of EMLAP cream, the swelling subsided by itself within a few hours. The night before the follow up visit he had applied the EMLAP cream. On examination there was oedema of the glans penis especially on the ventral aspect (fig 1). There was no evidence of any dermatitic/eczematous lesions or weals over the glans. He was diagnosed as having angioedema induced by contact with EMLAP cream. To confirm the diagnosis, a patch test was performed with the EMLAP cream ''as is,'' half diluted with white soft paraffin, lidocaine 2% and cream base applied on patient's back. The results, read after 48 hours, showed a positive reaction to EMLAP cream, both to the original product and also to the diluted product (fig 2). However, there was no reaction to the lidocaine and cream base. Since a positive reaction was present to only the lidocaine and prilocaine combination and not to lidocaine alone, the diagnosis was confirmed as contact angioedema secondary to contact allergy to prilocaine. The patient was advised to stop using the EMLAP preparation and given topical steroids which resulted in complete subsidence of the oedema in a few days.

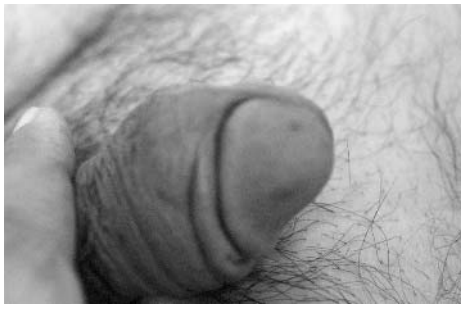

**Figure 1** Angioedema affecting the penis with predominant involvement of the ventral aspect.

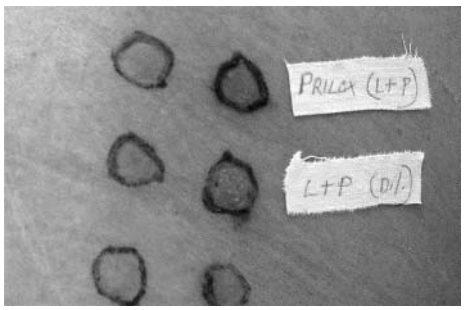


**Figure 2** Patch test showing positive reaction to EMLAP cream ''as is'' and to the cream half diluted with white soft paraffin. There is no reaction to lidocaine or to cream base.

## DISCUSSION

Uses of topically applied local anaesthetics on the genitalia include premature ejaculation, idiopathic localised genital pain syndrome, genital mucosal biopsy and before electrocautery or laser ablation of genital warts.[6 7] Contact dermatitis to various local anaesthetics has been described, of which one of the most common is contact dermatitis occurring to lidocaine.[3] There are a few reports of contact dermatitis developing to prilocaine and also to EMLAP,[2 3 8] but we could not find any previous report of angioedema caused by contact sensitivity to prilocaine or EMLAP. Angioedema developing secondary to other topically applied preparations has been described including that to budesonide, a topical corticosteroid used as inhalant for treatment of bronchial asthma.[9] Contact urticaria has been described to the local anaesthetic benzocaine.[10] In the non-allergic (non-immunological) variety of contact urticaria, the reaction is produced without any previous sensitisation and can be provoked in almost all exposed individuals. The allergic variety occurs only in previously sensitised individuals.[5] There is no term ''contact angioedema'' in the literature, but we think for cases such as this one the term contact angioedema can be applied. As there were no weals, significant erythema,

or dermatitic changes, the term ''contact urticaria'' and ''contact dermatitis'' are inappropriate in our patient.

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